UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,404	03/28/2007	**Eddie Riddington**	088245-1052	1414

23524 7590 04/28/2009

FOLEY & LARDNER LLP
150 EAST GILMAN STREET
P.O. BOX 1497
MADISON, WI 53701-1497

EXAMINER	
BEYEN, ZEWDU A	

ART UNIT	PAPER NUMBER
2416	

MAIL DATE	DELIVERY MODE
04/28/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/579,404	RIDDINGTON ET AL.	
	Examiner	Art Unit	
	ZEWDU BEYEN	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05/12/2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *05/12/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-35, have been examined and are pending.

Information Disclosure Statement

2. An initialed and dated copy of applicant's IDS form 1449 submitted 05/12/2006, is attached to the instant office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-16,18, 30-33, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Koistinen to **(US6308063)**

Regarding claim 13, and 30 Koistinen teaches a TRAU frame with sets of bits corresponding to a plurality of transport channels for a speech signal ordered in sequence in accordance with a priority associated with said channels**(fig.2, fig.4 disclose FRAU frames with different bits that is associated with the transport channels)**.

Regarding claim 14, and 31 Koistinen teaches transport channel is associated with error checking bits**(col. 6 lines 59-60 discloses CRC bits)**, the error

checking bits being ordered in sequence with the associated data bits**(col. 6 lines 59-60 discloses CRC bits inserted in FRAU frame).**

Regarding claim 15, and 32 Koistinen teaches including a set of control bits **(fig.3, and col.6 lines 44-47 disclose a bit C17 that is used in the unlink direction for controlling discontinuous transmission of the downlink direction)**..

Regarding claim 16, and 33 Koistinen teaches a control bits include an indication of the coding of the speech signal **(col.6 lines 25-27 discloses a flag C16 bit that is used to indicate the medium that the frame will not able transmitted through).**

Regarding claim 18, and 35 Koistinen teaches a set of control bits, a set of class A bits, a set of error check bits, and a set of Class B bits, the set of control bits including at least one bit identifying the location of the other sets of bits in the frame**(fig.2, fig.4 disclose FRAU frames with different bits that is associated with the transport channels)**,

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4,6-11,19-22,24, 25,and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koistinen to **(US6308063),** in view of Olsen to **(US-PGPUB-2002/0164992)**

Regarding claims 1,and 19, Koistinen teaches determining a set of bits associated with each transport channel of the speech signal **(fig.2, fig.4 disclose FRAU frames with different bits that is associated with the transport channels),** inserting into a TRAU frame the set of bits associated with the transport channel of highest priority **(fig.2, fig.4 disclose FRAU frames with different bits that is associated with the transport channels),** repeating the inserting step sequentially for each transport channel in order of priority**(fig.2, fig.4 disclose FRAU frames with different bits that is associated with the transport channels. Thus, the processes of inserting the bits in the FRAU will continue),**

Koistinen does not teach determining a coding type for the speech signal, and a priority for each transport channel

However, Olsen teaches determining a coding type for the speech signal ([**0022] discloses having the priority code 72 further determined by a type table 78 in conjunction with the type code 70)**; determining a priority for each transport channel **([0022] discloses having, depending on the priority code 72, the channel table 74 determine to do one of the group of: (1) use a specific channel; and (2) use the first available channel from a series of specified channels)**

Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to enable the system of Koistinen determine a coding type for the speech signal, and a priority for each transport channel, as suggested by Olsen. This modification would benefit the system to decode the speech signal correctly and to give urgency for signal that needs to be processes quickly.

Regarding claim 2, Koistinen teaches determining any error checking associated with each transport channel **(col. 6 lines 59-60 discloses CRC bits)** computing any error check bits for each transport channel **(col. 6 lines 59-60 discloses CRC bits which will be used to compute error correction)**; the step of inserting further comprising inserting any error check bits associated with such transport channel after the set of bits for that channel **(col. 6 lines 59-60 discloses CRC bits inserted in FRAU frame).**

Regarding claim 3, Koistinen teaches inserting control bits into said TRAU frame **(fig.3, and col.6 lines 44-47 disclose a bit C17 that is used in the unlink direction for controlling discontinuous transmission of the downlink**

direction)

Regarding claim 4, Koistinen teaches the control bits are inserted in a reserved location **(fig.3, and col.6 lines 44-47 disclose a bit C17 that is used in the unlink direction for controlling discontinuous transmission of the downlink direction).**

Regarding claim 6, Koistinen teaches the speech signal includes two transport channels comprising a set of class A bits and a set of class B bits**(fig.2, fig.4 disclose FRAU frames with different bits that is associated with the transport channels)**, at least a portion of the class A bits being associated with a cyclic redundancy check**(col. 6 lines 59-60 discloses CRC bits)**, wherein a set of cyclic redundancy check bits are compiled in dependence on all the class A bits, the TRAU frame including, in sequence, the set of class A bits, the set of check bits, and the set of Class B bits**(fig.2, fig.4 disclose FRAU frames with different bits that is associated with the transport channels)**,.

Regarding claim 7, Koistinen teaches the TRAU frame with an initial set of control bits **(fig.3, and col.6 lines 44-47 disclose a bit C17 that is used in the unlink direction for controlling discontinuous transmission of the downlink direction)**.

Regarding claim 8, Koistinen teaches the set of cyclic redundancy bits are compiled in further dependence on at least one control bit**(fig.3, and col.6 lines 44-47 disclose a bit C17 that is used in the unlink direction for controlling discontinuous transmission of the downlink direction. Furthermore, col. 6 lines 59-60 disclose CRC bits).**

Regarding claim 9, and 26 Koistinen teaches locating a set of bits corresponding to each transport channel**(fig.2, fig.4 disclose FRAU frames with different bits that is associated with the transport channels)** decoding the transport channels in dependence on the recovered data bits in accordance with the determined coding type**(fig.1 discloses TRAU encoding and decoding for encoding and decoding frame).**

Koistinen does not teach determining a coding type for the speech signal

However, Olsen teaches determining a coding type for the speech signal ([**0022] discloses having the priority code 72 further determined by a type table 78 in conjunction with the type code 70)**;

Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to enable the system of Koistinen determine a coding type for the speech signal, as suggested by Olsen. This modification would benefit the system to decode the speech signal correctly and faster.

Regarding claim 10, and 27 Koistinen teaches locating any error check bits associated with each transport channel **(col. 6 lines 59-60 discloses CRC bits)**, in dependence on the presence of error checking bits, error checking each transport channel**(col. 6 lines 59-60 discloses CRC bits which will be used to compute error correction)**.

Regarding claim 11 and 28 Koistinen teaches locating a set of control bits, said control bits including an indication of the coding type of the speech signal **(col.6 lines 25-27 discloses a flag C16 bit that is used to indicate the medium that the frame will not able transmitted through).**

Regarding claim 20, Koistinen teaches error check determining means for determining any error checking associated with each transport channel**(col. 6 lines 59-60 discloses CRC bits)**

error check computing means for any error check bits for each transport channel**(col. 6 lines 59-60 discloses CRC bits which will be used to compute error correction)**

the insertion means being further adapted to insert any error check bits associated with such transport channel after the set of bits for that channel**(col. 6 lines 59-60 discloses CRC bits inserted in FRAU frame).**

Regarding claim 21, Koistinen teaches to insert control bits into said TRAU frame**(fig.3, and col.6 lines 44-47 disclose a bit C17 that is used in the unlink direction for controlling discontinuous transmission of the downlink direction. Furthermore, col. 6 lines 59-60 disclose CRC bits).**

Regarding claim 22, Koistinen teaches the control bits are inserted in a reserved location**(fig.3, and col.6 lines 44-47 disclose a bit C17 that is used in the unlink direction for controlling discontinuous transmission of the downlink direction. Furthermore, col. 6 lines 59-60 disclose CRC bits).**

Regarding claim 24, Koistinen teaches the speech signal includes two transport channels comprising a set of class A bits and a set of class B bits**(fig.2, fig.4 disclose FRAU frames with different bits that is associated with the transport channels)**, at least a portion of the class A bits being associated with a cyclic redundancy check**(col. 6 lines 59-60 discloses CRC bits)**, wherein a set of cyclic redundancy check bits are compiled in dependence on all the class

A bits, the TRAU frame including, in sequence, the set of class A bits, the set of check bits, and the set of Class B bits**(fig.2, fig.4 disclose FRAU frames with different bits that is associated with the transport channels)**,.

Regarding claim 25, Koistinen teaches the insertion means is adapted to insert in the TRAU frame an initial set of control bits**(fig.3, and col.6 lines 44-47 disclose a bit C17 that is used in the unlink direction for controlling discontinuous transmission of the downlink direction).**

Claims 17 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koistinen, in view of Honkasalo to (US6636497).

Regarding claims 17 and 34 Koistinen does not teach control bits that include a transport format combination indicator.

However, Honkasalo (US6636497) teaches control bits that include a transport format combination indicator **(col.9 lines 37-39 discloses a transport format indicator (it can also be called rate indicator or transport format combination indicator) that is used to indicate the mixture of services used in the frame)**

Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to include a transport format combination indicator in the system of Koistinen, as suggested by Honkasalo. This modification would benefit the system of Koistinen as a design choice.

Claims 5, 12, 23, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koistinen and Olsen, and further in view of Honkasalo to (US6636497).

Regarding claims 5, 12, 23 and 29 Koistinen and Olsen do not teach control bits that include a transport format combination indicator.

However, Honkasalo teaches control bits that include a transport format combination indicator **(col.9 lines 37-39 discloses a transport format indicator (it can also be called rate indicator or transport format combination indicator) that is used to indicate the mixture of services used in the frame)**

Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to include a transport format combination indicator in the system of Koistinen, as suggested by Honkasalo. This modification would benefit the system of Koistinen as a design choice.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (See PTO-892).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ZEWDU BEYEN whose telephone number is (571)270-7157. The examiner can normally be reached on Monday thru Friday, 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 1-571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Z. B./

Examiner, Art Unit 2419

/Hassan Kizou/

Supervisory Patent Examiner, Art Unit 2419